



*Did you know?*

*September, 2005*

## New Video on Advances in Hurricane Modeling Deserves a Look

What's being done at NASA to improve our understanding and forecasting of hurricanes? A new, nine-minute video titled: "Behold, A Whirlwind Came: The Science of Tracking Hurricanes" was



recently released by the Earth-Sun System Technology Office (ESTO) Computational Technologies Project and provides some insight into recent accomplishments in this area. The documentary-style video shows how NASA computer modeling research is contributing to an improved understanding and forecasting of hurricanes.

Interviews of three Goddard Space Flight Center scientists are woven with scientific visualizations and live-action footage of hurricanes. The video

focuses on applying the NASA finite-volume General Circulation Model (fvGCM) to the 2004 Atlantic Ocean hurricane season. By running at near 25-kilometer resolution, or about twice that of current operational forecasts, the NASA fvGCM has shown in some cases an accuracy of landfall prediction on the order of 100 kilometers up to 5 days in advance. This model has the potential to lead to dramatic improvements in warning time and intensity forecasts for tropical cyclones around the globe.

NASA is collaborating with the National Weather Service and other agencies worldwide to improve forecasts so that, among other advantages, local authorities can narrow areas for evacuation.

The video was produced for the September 2005 TerraLink exhibit at the Maryland Science Center in Baltimore. It is also available online at the Goddard Space Flight Center Scientific Visualization Studio site: <http://svs.gsfc.nasa.gov> (search keyword "whirlwind")

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